

An Essay on the means  
of  
Preventing  
Hereditary and Acquired  
Predispositions  
to  
Pulmonary Consumption

1812

by

Lieut. Genl. H. Mosby

of

Virginia

the City in the name

of

Government

Respectfully and a document

Presidential

Calvin Coolidge

1917

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Address to Congress

Washington

In viewing the bills of mortality, we are instantly struck with the fact, that nearly one fifth of mankind die of Pulmonary Consumption. A disease, therefore, more formidable than any, to which the human species are subject; this then, is the excuse I offer, for making it the subject of the present essay; without it, I might be accused of arrogance, for offering any thing on this subject, which has engaged the attention of the greatest men, the science of medicine can boast. The ocean is made up of particles, each is distinct, and commanding attention: So is the science of medicine, every fact is to be regarded as such, and as constituting ~~a whole~~ part of a whole, which when combined, constitutes perfect knowledge. This then, is my motto, and if I should stumble on anything original, which may tend either directly or indirectly to obviate the disease of Pulmonary consumption: I shall consider, the object of this essay more than attained.

There is, perhaps no disease, in which writers more uniformly agree, as to its history; while at the same time, none in which the remedies that have proved successful in one case, have so uniformly failed in others. This, ill success, arises



principally from the want of proper attention, not being paid  
to the state of the system when remedies are used, <sup>and</sup> this ~~is~~,  
from the nosological arrangement of diseases, where they are  
prescribed for by their names, and not symptoms. This cause of  
failure, is in those cases, where the disease might have been cured  
had proper attention been paid. I am sorry to add, the most fre-  
quent cause of the inefficacy of medicine in this disease, consists  
in its nature; for we see every day almost, that though the reme-  
dies are adapted and suited to <sup>the</sup> pathology, yet in forty nine  
out of fifty cases, it proves fatal.

I can readily conceive that all of the remedies, that are in use  
for the cure of consumption, have in some stage or other proved  
useful as a palliative, removing some of the symptoms: also  
that some medicines which by their stimulating and tonic power  
have, <sup>by</sup> acting on, predisposing debility, prevented an attack of the  
disease. This, therefore is a good remedy, when properly used, whilst  
at the same time it is the cause of thousands of deaths, inasmuch  
that the remedy thus used, is then advertised to the world as a spe-  
cific for the cure of the disease; this we see in the common news pa-  
pers. I need hardly say how, these remedies or specifics, become



directly, the cause of the mortality of the disease. The poor infatuated patient readily catches at every thing he hears or sees, as is the case with his uninformed friends and relations. A resort therefore, is instantly had to those specifics and their discoverers in most cases, who, as we may very <sup>truly</sup> believe are a set of Empirics, for none others would advertise to the world a specific <sup>medicinal</sup> for the cure of any disease but more particularly of the one in question, as it assumes such a variety of forms and stages; each according to nosologists, ought to have a new name, and also a remedy. The patient all of this while, is either becoming worse, from the use of those stimulating articles (when he should deplete) or from a loss of time, the disease has made such advances on the system, as to repel the most skilful and well directed practice.

So much then, for the clerical arrangement of diseases, and its consequences, the quacks and their specifics, as causes, retarding our knowledge and cure of Pulmonary Consumption.

There are many reasons, for the combined powers of medicine, to be resorted to in order, that the disease of pulmonary consumption may be rendered less frequent, first its frequency, secondly its mortality and thirdly, its generally attacks and carries





us off, when we are in and entering on the prime of life. This I consider among the greatest evils, that attend the disease: for to die; or when from the common course of things, it might be expected, we have less cause to repine, and at the same our friends, and relations are better prepared to sustain the shock; that is always felt on such occasions. Widely different, is the case with pulmonary consumption; it snatches from a father a son who has been separated from him for years, and <sup>who</sup> has been engaged in professional pursuits. Which when acquired, constitutes him an ornament to society and a blessing to his parents and often paves the way to his grave. The misfortune does not end here, next a daughter, who like a full blown rose, soon withers in consequence of an insect mounding the roots of the bush on which it ~~stands~~ hangs. In some cases whole families arrive at the age of puberty, apparently in good health and sound constitutions; but as soon as they arrive at a certain period, they are attacked and destroyed in a manner, that leaves to the rest of the family and physician, only warning of their dangerous situation. The disease may be esteemed, in this case to be hereditary: for the cure of which and acquired predisposition, constitutes the object of this essay



First of hereditary predisposition; which I divide into such as are affected with a peculiar diathesis which I believe exists in the constitution of parents and thus communicating it to their offspring: secondly, combined with this diathesis, mal conformation of the body. This division I make because we see many persons die of the <sup>disease</sup> without their exhibiting any deformity; which I believe to be purely accidental and depending on the same cause, of deformities in other parts of the body as well as the thorax. The utility of this division will appear as I proceed.

Every practitioner of medicine when he commences business <sup>ought</sup> to learn all of the diseases, which may be considered as hereditary or peculiar to the different families in which he practises. By thus studying the diseases of families he is enabled to prescribe for his patients, with promptitude and with success in some cases, where he might have been embarrassed, and when <sup>thus</sup> situated the chances are much against his prescribing properly. A knowledge of the predispositions is of essential service, when there exists an epidemic fever. So is a knowledge of the hereditary predisposition in obviating consumption he is of singular advantage as it enables a practitioner to regulate his practice accordingly, always believing the disease to be more dangerous in these cases.

Well, when the disease, is discovered to be in a family, what



there is also a family of children: here, then the disease is to be presumed  
as existing necessarily connected with the existence of the offspring, of  
such parents. The plan to be pursued by the physician, is to advise  
such children, to be brought up by another milk. This may be effected  
by means of a wet nurse, or where this cannot be done the child  
should be raised as much as possible by hand. Where there is a mind  
to be had she should be free from all diseases, should have been accus-  
tomed to labour and a plain wholesome fare. The child may now be given  
to the nurse, her diet should consist of what she had been accustomed  
to formerly and also that she should continue her employments as be-  
fore, and in short no variation in any circumstances, ought to be tol-  
erated. The child should never be allowed to sleep in the same bed with  
her parents, as is often the case, nor with the nurse: this practice is  
of itself injurious but more so in case of the parents especially if  
they are in the smearing stage of the disease. I can readily believe that  
such an atmosphere, as would be the consequence, of the smearing state  
of the disease, is liable to many ill consequences. It has been thought  
the disease is contagious, every chance would be given it here: but as  
to the fact of contagion I believe not though I believe that such  
practices would induce ~~such~~ a state of debility, in a majority of  
cases



prove to be the cause of other diseases, which would in all probability end in death. This separation of the child from the mother is also attended with salutary effects as to the mother, by avoiding the depletion that would necessarily follow her affording milk for the child. To this there is a great objection as to the benefit the mother is to derive; for sometimes the plethora which would follow in consequence of stopping a natural discharge, as the milk; induces such a state of congestion in the lungs and thereby becomes the exciting <sup>cause</sup>, as acting on a predisposition. This should not induce the mother to suckle her own child for it is a matter of perfect ease to have the milk drawn from the breast.

The effects produced in all of this changing, is attended with a positive and probable good result. No body will deny the great effects of changing <sup>un</sup>wholesome for wholesome milk, as regards the child. That milk is affected by the health of the woman from which it is drawn, needs no proof; while at the same time it affords the strength of the woman. This is seen, when women are nursing, in as much as they eat and drink more and also a diminution of the bulk of the body. The advantage gained here as to obviating hereditary predisposition, consists, in the invigoration the system acquires from an early and well applied remedy, as to the constitution, what a good foundation, is to the building a house, or mill dam.

Supposing an <sup>un</sup>equal number of males and females ~~born of hereditary predisposition~~ <sup>to</sup> and of pulmonary consumption, as is the case; Dr Rush says three eight times as many

v. J. Rush taught in his lectures that at  
one time, he had eight women under his care  
in consumption, & no one man.



of the latter, than of the former, die of this disease.<sup>V</sup> Still I believe that  
more males than females, die in consequence of an hereditary predispo-  
sition. My reasons for this belief are as follows.

1. Custom has sanctioned that the men should do those things that  
are more directly connected with great bodily exertions, and particular-  
ly in the open air: this is one of the best preventatives, and properly  
managed one of the most effectual cures for the disease. Dr. Rush in  
his treatise of the disease begins, by remarking that it was unknown  
among the Indians of N. America at the time of its settlement and  
that directly as the manners and customs of the first settlers approxi-  
mated to those of the Indians, so were they exempted from the disease.  
The inference I wish to draw, is that men in their occupations approach  
more to the Indian manner, than women: and consequently less liable  
to be affected by acquired predispositions.

2. From men being rendered more handy ~~than~~<sup>by</sup> exposure, and of course  
not so liable to be affected by the changes of the weather, ~~they are~~<sup>and</sup> less  
apt to be affected by those diseases that owe their origin to those chang-  
es of weather, as Catarrh, Pneumonia &c. all of which are especially  
active in forming Phthisis pulmonalis. That the vicissitudes of weather  
favour consumption may be seen, by referring to the diseases of cli-  
mates that are uniformly hot or cold: here the disease is little known.

3. The dress of men, less disposes to the disease, on account of their  
quantity quality and the manner of wearing them. The obvious effect  
of the clothes, consists in the light manner they are worn by, and  
not



being tightly bound around the body and thus prevents a free and uniform circulation of the blood.

4. Men are more accustomed to great exercises of the lungs as in public speaking, talking louder generally (the not now) playing on wind instruments of music &c. All of these causes act merely <sup>by</sup> exercising the lungs which upon a par, with the effects of exercise on other parts of the body

5. From more men than women being able to travel and the more officious and less expensive manner, on horse back.

6. From the facility that men can change residence for active employment.

From all of these reasons, I conclude that when men die of the disease, it is more frequently from an hereditary than acquired predisposition that invite an attack of the disease: ~~from~~ <sup>for</sup> the newburg croup is more in consequence of their employments and all of the invigorating causes I have enumerated act by rendering the system impervious to the disease: therefore a greater cause is required to produce this effect. This consists in an hereditary diathesis, prevailed <sup>ing</sup> in the system which cannot be overcome, but by anticipating <sup>it with</sup> the most rigorous treatment.

The practical fact obtained from an idea that men are more liable to be affected with an hereditary disease, consists in our using more strictly, those remedies, that are adapted to dangerous and obstinate cases, for such are those that depend on this diathesis.

The management of the hereditary predisposition should continue from the invigorated state that children acquire by being nursed by



a healthy woman. The management of children until they arrive at that period at which the employments and occupations, are generally determined on: should be such as to render the constitution robust and accustomed to the changes of the weather, particularly. Every body will agree that the children of opulent parents are more subject to Catarrhs, pneumonias &c. than those of poor persons, where the children are of necessity exposed to the inclemencies of the weather; this proposition may be rendered stronger, by referring to the slaves of the southern states; where in many cases the children are almost without clothes and the fare of the coarsest sort. An imitation of this practice would tend much I believe to the invigoration and to the future health of such persons.

Where, however the system has not undergone the process then mentioned, there is a period at which the advice of a physician is of the utmost consequence, and one which will most frequently happen. I mean that time of life at which parents choose what occupation to put their sons to; this is to be esteemed a very important time to apply the means of obviating pulmonary consumption, where we have every reason to believe an hereditary diathesis prevails in the system and needs only the exciting causes to make it appear. From what I have before said, those employments that require the greatest bodily exertions, should be preferred; where there exists none of the preliminary signs of real consumption; but on the contrary if the disease has in any way shown itself, the remedies (which consist in the mode of life to be pursued) should be adopted to the state of the system in the same manner that attention should be paid to the state



of the system, when we change from depleting, to stimulating and tonic medicines.

The remedies or the mode to be pursued when one believes, there exists only a predisposition, which consists of a peculiar diathesis, are the following.

First, consists of employments where the bodily exertions are great and principally in the open air. Where the parents have led a sedentary mode of life, the reverse of the employments should be chosen.

Secondly, combined with this bodily labour, a corresponding exercise, should be chosen for the lungs, which may be had by loud and frequent speaking singing and a most excellent method playing on some wind instrument of music.

Thirdly, the diet should correspond with the employment, and avoiding all stimulating drinks, such as rum, brandy &c. This is of the first importance to inculcate in the minds of the patients, also the use of Tobacco as being one step advanced towards a love of spirituous liquors.

Fourthly, this mode of life should be continued until the patient arrives at the age of 25 years, at this period the constitution thus treated may be concluded to be altered, or as having chased away the predisposition. This mode of life should not be stopped abruptly, others should be engaged in the of a more moderate nature, than those recommended. Thus where the occupation originally was a house carpenter it may be that of a farmer, then <sup>the</sup> moving on gradually he may be any thing.

Third  
The efficacy of the ~~two~~ first modes of life being such as to defy the disease of pulmonary consumption; may be illustrated by facts. The slaves in Virginia and the Southern states, are engaged





in the most laborious employments exposed to all kinds of weather both by night and day, sometimes, their fare very plain consisting chiefly of bread made of Indian corn (in Virginia) and their clothing on a par with the rest of their treatment. The disease is hardly or never known among the slaves. I never knew but two negroes to die of consumption, neither of which were accustomed to lead the lives of the slaves generally. I conclude therefore that the absence of consumption among this class of people, is to be ascribed entirely to their mode of life.

As to the efficacy of exercising the lungs being a preventative against the disease, I have to adduce facts here also; the merchants of this city exercise their lungs to a very great extent, while at the same time they are exposed to the inclemencies of the weather. Dr. Keel says he never knew one of them to be affected with consumption or even Symplocis. I have taken up an idea, whether it is a fact or no, I can only say as it has occurred under my limited observation: viz the French men that come to this country are not as apt to have consumption as the English, Irish or Scotchmen. If this is a fact as a general rule, I account for it on account <sup>from</sup> of the robust state of the lungs which is the consequence of their playing so generally on some kind instrument of music: this I believe to be a universal fact viz their great fondness for music. Frenchmen may perhaps, be exempted from the disease, by their manner of living as regards their diet, for they are very fond of spices, garlic onions, made into sauces and these used as condiments. Whether this is a fact or no, those who have



lived longer and seen more of Frenchmen than I have, can only de-  
termine. Wherever, therefore, we approach to the manners and customs of  
Indians, slaves ~~and~~ perhaps Frenchmen and certainly matchmen, there  
may we expect to find ourselves more immediately <sup>strongly</sup> from within the whirl  
pool's influence, into which, if one are drawn, death is the consequence.

The other division of hereditary predisposition, has along with the  
consumptive diathesis, mal conformation of the thorax. This at once  
involves more difficulty and of course, the probability of entirely remov-  
ing the predisposition, less.

The plan of treatment is, as before, only <sup>when</sup> combined with these ac-  
tive employments, great care should be taken, to have the shoulders  
kept as nearly as possible in their natural situation: this may in a  
measure be accomplished by some suit contrivance, as young girls  
are made to wear in consequence of their stooping forward. Sleeping  
on a mattress in winter and in summer on a plank floor, one or two blan-  
kets intervening, his head on a level with his body: this assists the other  
contrivances to render the thorax larger and more natural. While  
these external methods are used, the exercise of the lungs, will cause  
them to grow and expand to occupy every part of the thorax, thus ~~not~~  
cooperating with the external force in enlarging the capacity of the tho-  
rax and occupying at the same its cavity completely, preventing thereby,  
the contraction of the thorax again.

The acquired predispositions, consist in mal conformation of the  
body from all its causes, from acute and chronic diseases and all  
causes that tend to debilitate the system generally.

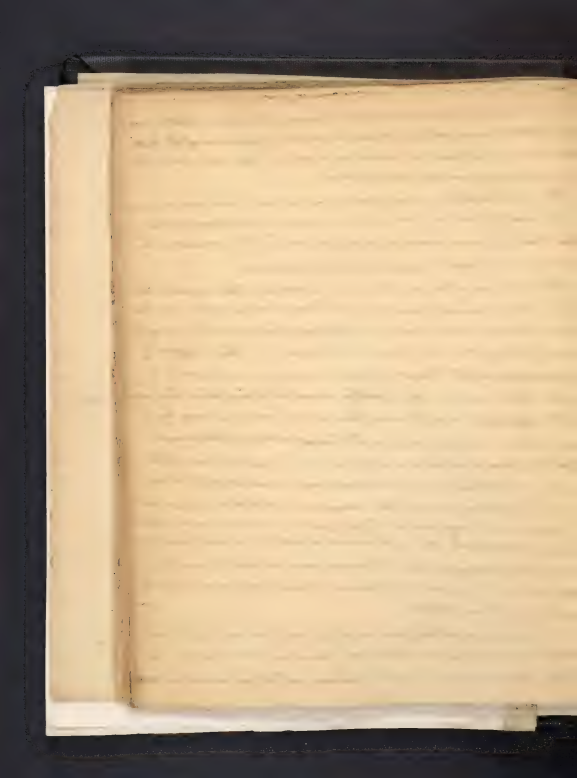


First, of mal conformation of the Thorax: this may be ~~that~~ arisen from the same cause (or whatever it may be) as other deformities of the body, ~~and~~ that acquired from all sedentary modes of life and lastly, by the means of dress, as in the case of ladies.

The remedies for the natural deformity are such as I have mentioned, under the head of hereditary predisposition combined with deformity. The arms should be more vigorously employed for here, the removal of the deformity constitutes the removal of the predisposition.

Those deformities that owe their origin to sedentary lives, imports, that they have been originally good, but by the same position of the body, from smiling as clerks or studious men &c. the thorax has contracted and of course the lungs are more crowded than formerly. The ill effects of this compression of the lungs, consists, primarily in an inability to perform their natural office, for they receive the blood (which has gone thro the different parts of the body), loaded with impurities, and by a change which it undergoes when in the lungs; is thereby fitted again for the purposes to which it is destined. So, a confined state of the lungs, renders them unable to expare and receive all of the blood sent to them; for purification; the consequence is that obstructions are the result in the lungs and all the ill effects of it acting on the whole system. Nature in this state of the disease attempts to relieve herself by spontaneous hemorrhages from the lungs, nose, uterus &c. and thus points out to us the course to be pursued, which if now neglected, the disease is apt to end fatally.

The remedies for this predisposition are, first where there is a plethoric habit, frequent bleedings, avoiding all irregularities of life, particularly the exciting causes, which are secondary only,



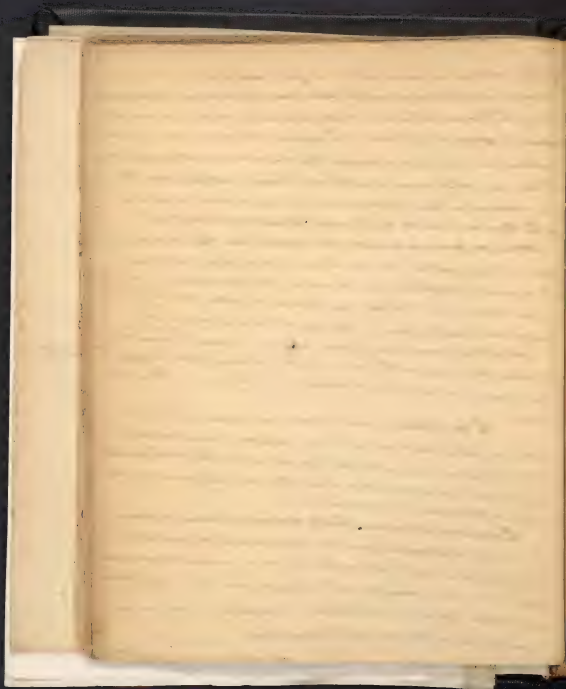
of life, exercise on horseback and on foot ~~and~~ gradual and regular exercise of the lungs and the same way of obviating the deformities of the thorax, as has been already mentioned. All of these remedies should be governed by the state of the system. The exercises of riding and walking are of the first importance they should be used alternately in the same day, while riding strengthens the thorax, walking does the lower extremities thereby keeping up a free and regular circulation of the blood or to use Dr. Rush's words "plumbing the system."

Women are particularly liable to be affected from this predisposing cause to Consumption first, by the direct compression of the thorax by the mammae they drop their parts, secondly from their sedentary and inactive mode of life, thirdly, from the want of proper exercise of the lungs and fourthly, from the thinness of their dresses generally.

All of these causes tend to prove why more women than men die of Consumption, because they are necessarily deterred from the effective means of obviating this predisposition, by the manner I have mentioned.

The predisposing causes derived from diseases of the whole system are either from Acute or Chronic diseases. In one case the debility is from action and in the other from abstraction: they both however meet at one point and are upon a par. This is debility, and is equally active in predisposing to consumption.

The remedies for obviating this predisposition, consists in removing the debility, by stimulating and tonic medicines: the strictest attention being paid to the state of the system for many circumstances require that the remedies ~~may~~ should be changed from stimulating Medicines to those life so, and vice versa. In no disease is attention more requisite than in this stage of Consumption.





40.  
I have said that debility from whatever cause it was produced equally involves an attack of consumption: by this, I mean where the disease has affected all parts of the system equally: but on the contrary where the disease has confined itself more exclusively to any one part of the system, then it is probable will the debility be the greatest, and consequently invite a disease to come on and with the part affected. Thus a Syphilis leaves the bowels in a state of debility and thereby a state of excitability; when stimuli act on the bowels in this state, if of a paralytic or prostration is produced, or if of a milder nature the debilitated state of the bowels, prevent a reaction great enough to constitute a dysentery; The consequence in both of these cases is a Diarrhoea. So, in diseases which spend themselves on the lungs principally, there may be copied an attack corresponding with the predisposing and exciting causes. The misfortune attending the formation of diseases in the lungs is one great cause of the frequency and fatality of consumption;

First, from the nature and office of the lungs diseases are more frequently invited to that part and

Secondly, when attacked they are capable of sustaining an immense deal of disease before any premonitory signs (even) show themselves; thus increasing the difficulty to cure the disease. These two causes why diseases are more liable to attack and secondly to prove fatal in affections of the lungs, may be illustrated by a simile which is used by Dr. Rush. The lungs may be compared to a guard on one of the outposts, which guard being thus exposed to be attacked more frequently, than the other; but he is either taken by surprise or is asleep and lulled by unwariness; the rest sit of guards trusting to those on the outposts are more easily surprised and taken: so that the whole camp may be taken by a very inferior force. A cough, pain in the breast the phlegm are to be considered



aided as the outposts; these are frequently absent and thus one is frequently <sup>undiscovered</sup> ~~discovered~~ and conquered almost without a struggle.

A physician, therefore, should be a vigilant watchman and should by giving timely notice to such persons, as are affected with any of the predispositions. Thus by accommodating his defence according to the expected attack he may be prepared to make the greatest resistance.

One method now <sup>for</sup> of obviating the predispositions: this one of the first importance and particularly as obviating that most dangerous of all namely the hereditary predisposition: A change of climate, which may be divided into temporary and permanent.

First, of the temporary: this consists of a long journey to a climate to which the ~~dangered~~ patient is a stranger. To make this change as efficacious as possible, the journey should be performed on horseback, the patient should have business to transact, and in short every thing should be so contrived as to make the patient believe that the journey was performed on account of business. His mind will be engaged with the business and the variety of seeing that every day presents itself, thus losing all sight of his complaint, and at the same time prevented from brooding over and dwelling on the idea of his being predisposed to so dreadful a disease as pulmonary consumption. The time taken up in performing this journey, should be from eight or ten months to two years, thereby enhancing the efficacy of travelling with a change of climate.

Secondly, of the permanent change of climate from this great advantage is to be anticipated not only in consumptive cases but all chronic and hereditary diseases and from a degeneracy of the



of human species from any or from all the causes enumerated, if one may be allowed to reason from analogy. It is a fact which may be well laid on, viz. those animals, such as the horse, cattle, sheep and even poultry, after being accustomed to one plantation for a number of years, do degenerate in almost every respect. Farmers are well aware of this, and to obviate these bad consequences, they either exchange a their stock in the whole or in part, by the latter they gain an advantage, which is called cropping the breed. I have myself seen the good effects of changing situations, as regards sheep: from being small affected with distempers and very badly clad with wool; they have become immensely altered in every respect in which they were before deficient. The old women even changed their Gaultrey. This I have known done, and with the happiest effects.

From all of these facts, for such I esteem them, at least in part, when I have myself seen the good effects of a change of situation. I am inclined to the belief that a change of climate is one of the most efficacious means of overcoming hereditary predispositions, which consist (as I have before said) in a taint communicated from the parents to the offspring, and exists necessarily connected with every disease which is communicated in this way.

To obtain the greatest good, from a change of climate, it is the general opinion, that it should be to one uniformly hot or cold: this is a good practice; thereby one are exempted from all those diseases that belong to a changeable climate and which are peculiarly active in predisposing to consumption. This effect of changing climates on its effects may be had, this is a small



degree, by merely changing situations under the same degree of lat-  
itude.

The good effects to be derived from a change of climate, does  
not consist merely in a change of the atmosphere: but on the necessary<sup>ie</sup>  
active employment both of body and mind, which is the consequence  
of moving to a strange country, where also a stranger is the inhabi-  
tants and their little peculiarities, which were at first overlooked  
and can only be acquired by attention. These changes act, strengthen-  
ing the constitution, ~~and~~ giving a greater tone to the digestive organs,  
both of which go hand in hand: for as medicines become accom-  
modated to the system and thus lose their power; so may climate  
situation and all its appendages be so accommodated to the mental  
and corporeal habits of man, as for him to become torpid. I will  
make my meaning more apparent by an example. Stimuli acting  
on the system for a given length of time lose much of their power,  
and thus a greater quantity is required to produce the same effect;  
this may be continued to such a length, that a man may take at once  
what would kill half a dozen men, without any inconvenience to  
himself. So may a man by pursuing the same occupation, the same  
train of thoughts, the same atmosphere, the same company &c. become as  
insensible to their effects as the system did to the stimuli just men-  
tioned. A change of these stimuli I should have said, <sup>(the same)</sup> have a re-  
markable effect, tho' of a milder nature. So may a man by changing  
his situation entirely, excite in him <sup>set</sup> another action, by another set  
of stimuli, which consist in changing an old habitation to a new  
one and connected also with new acquaintances.





The writer of this Essay is much prejudiced against excuses and  
preambles, as often accompaniments to ~~these~~ productions of this nature;  
but where facts stand forth, prejudice must give way. Therefore the reader  
will consider this heterogeneous ~~and~~ collection of ideas, as the first  
attempt of the author, who in consequence of sickness and the shortness  
of the time which could be devoted to the subject, as excuse for the  
unconnected manner in which it is written.

22<sup>nd</sup> Feb. 1812.

